

F, June 13 9/14

User/Client

Process with  
Authentication Call  
(LOGIN.EXE)

Authentication  
Module

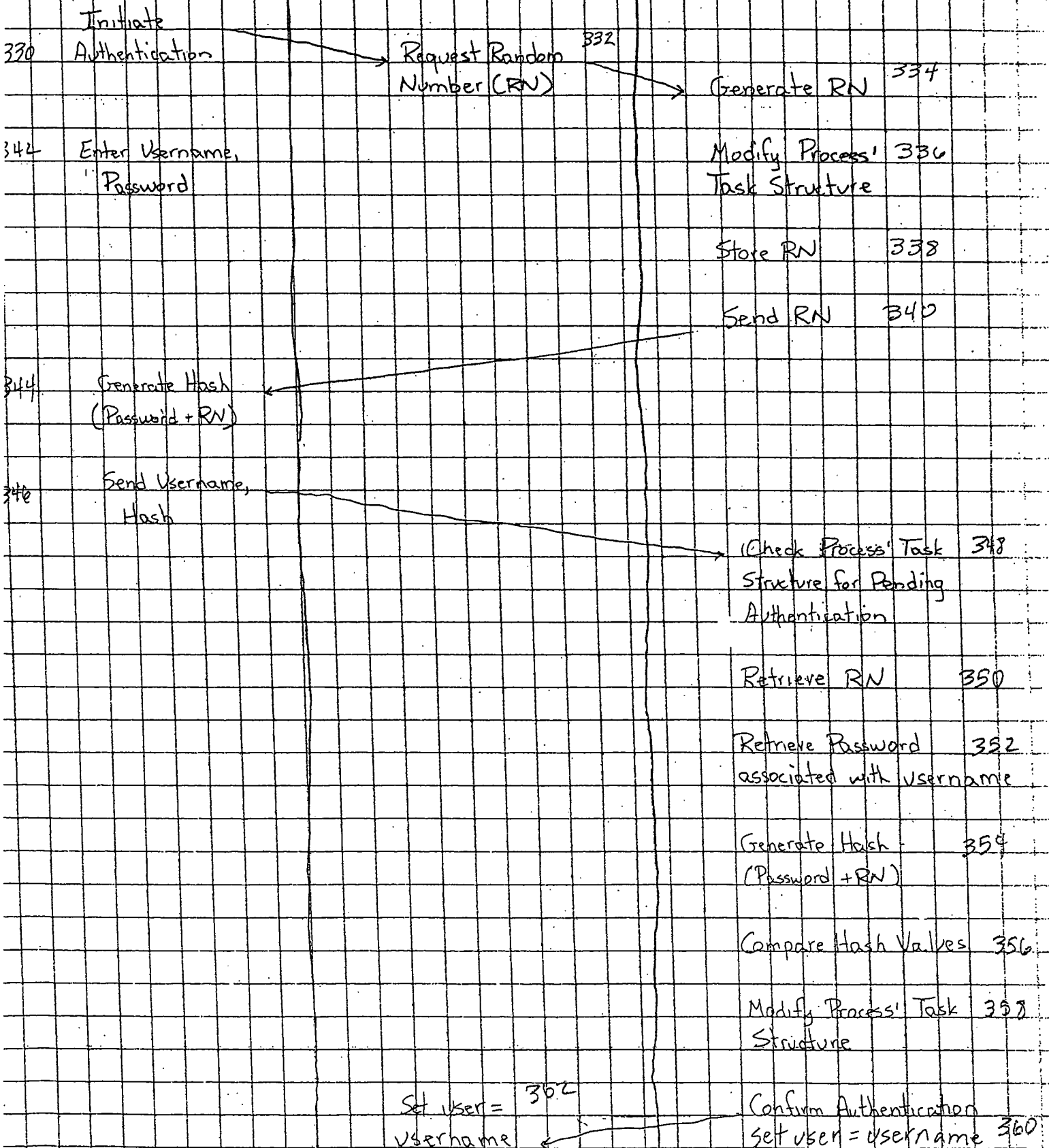
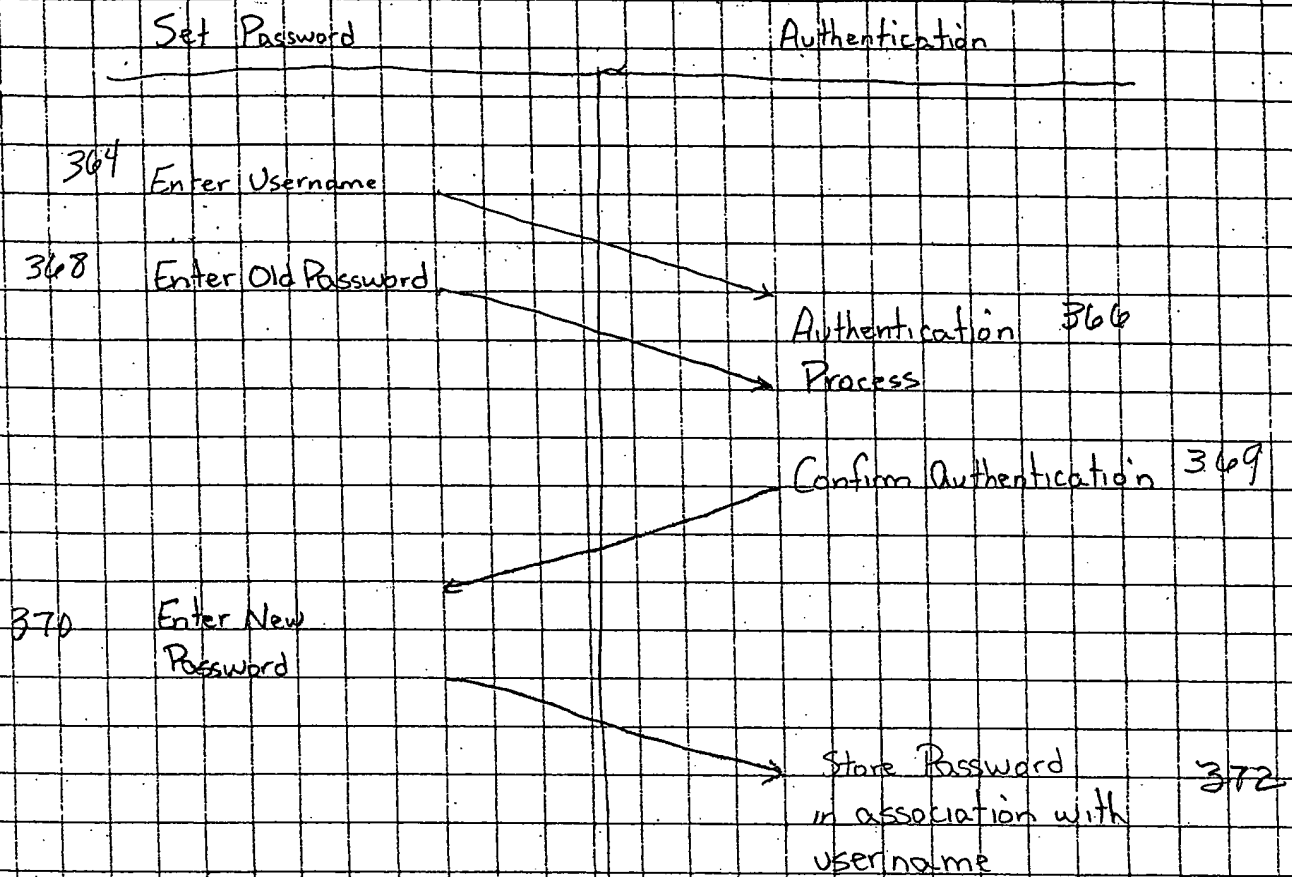


Figure 14

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Fig. 15

# Key Exchange

Client

Server

374 Request Key Exchange  
375 Send Username  
377 Enter Password (PW)

Modify Task Structure 376

Generate RN1 378

Send RN1 380

Retrieve Password (PW) associated with username 382

calculate hash  $H(PW, RN1)$  384

Key 1 =  $H(PW, RN1)$  388

Generate RN2 390

Send RN2 392

calculate hash  $H(PW, RN2)$  396

Key 2 =  $H(PW, RN2)$  398

Modify Task Structure 402

382 Calculate hash  $H(PW, RN1)$

386 Key 1 =  $H(PW, RN1)$

394 calculate hash  $H(PW, RN2)$

400 Key 2 =  $H(PW, RN2)$

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fig 116

Buyer

POS

PBS Server

Financial Server

Initiate Purchase

Display Credit  
Card options

406

Select Credit  
Card

Send CC  
Identifier

410

read CC number  
associated with  
CC identifier

412

Process transaction 414

Send Approval or  
Denial 416

418

Complete  
Transaction

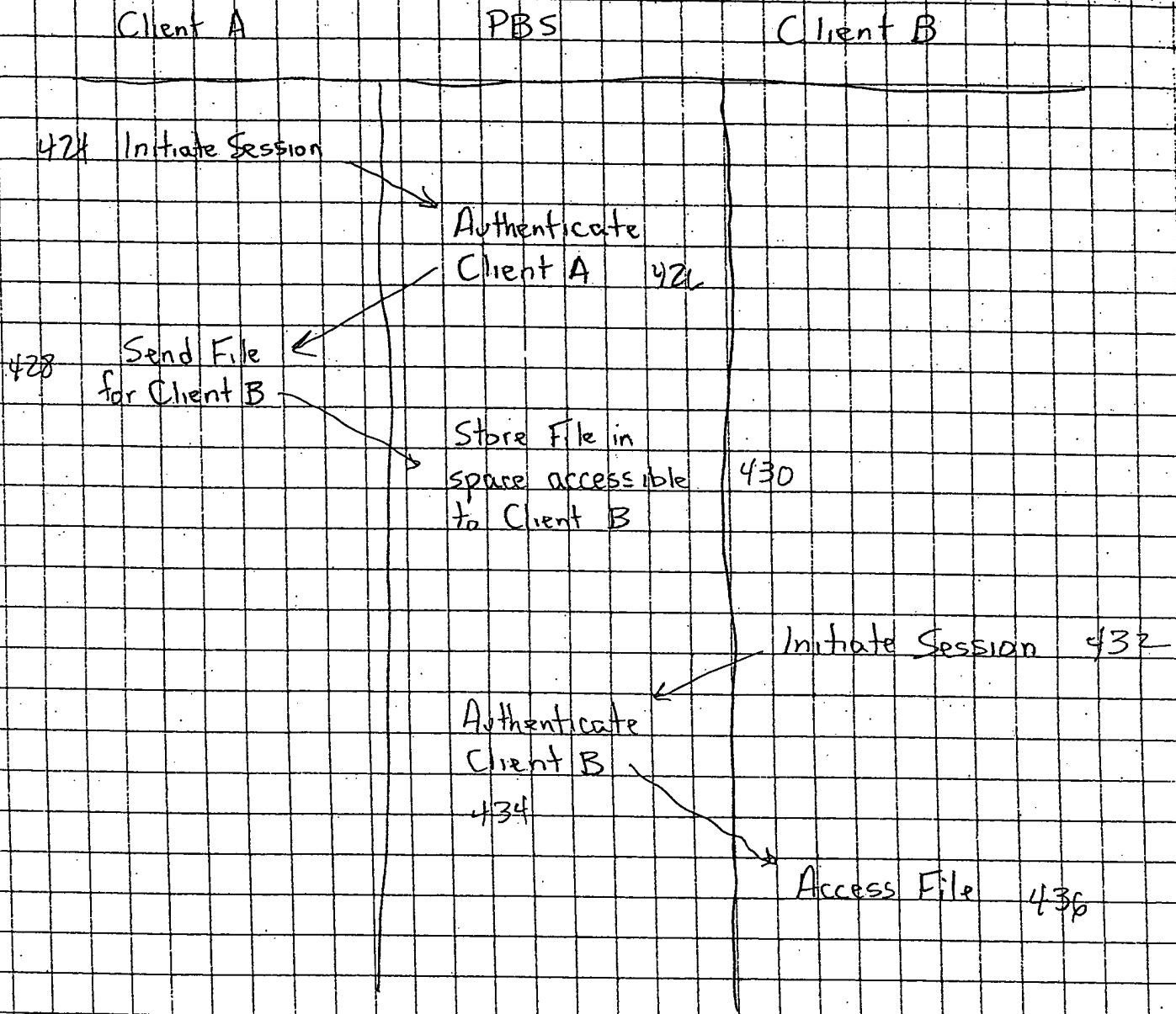
generate new  
CC identifier

420

Replace  
CC identifier

422

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Fig 17



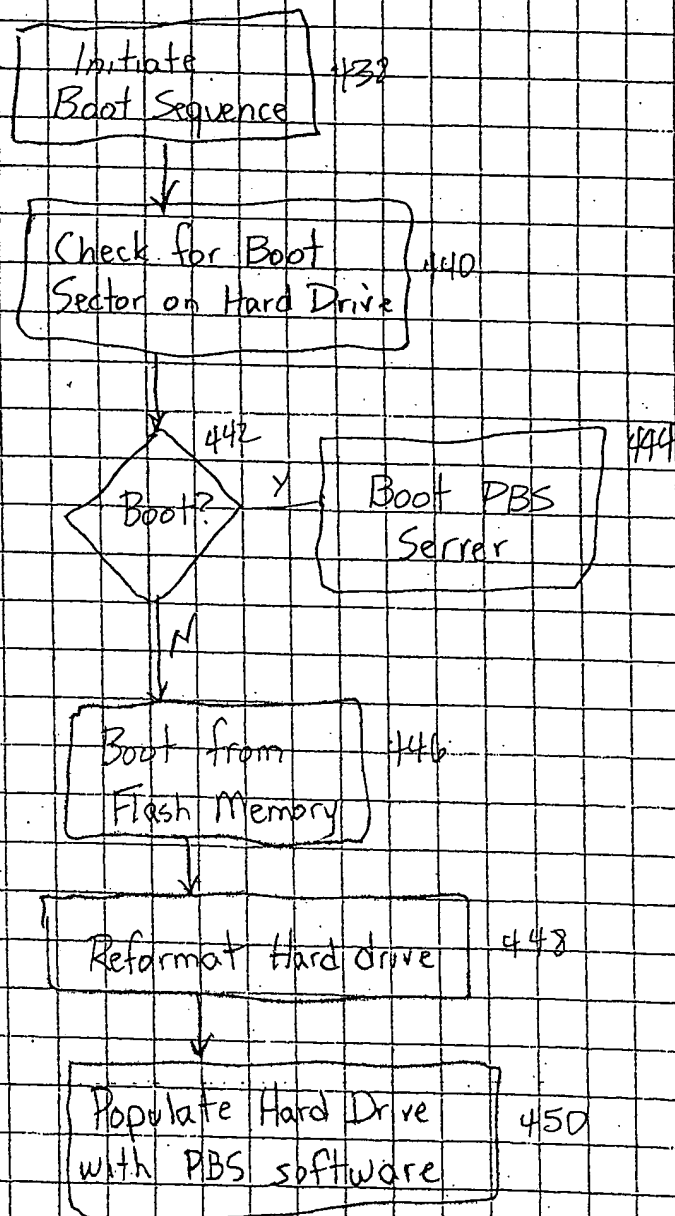


Fig 18

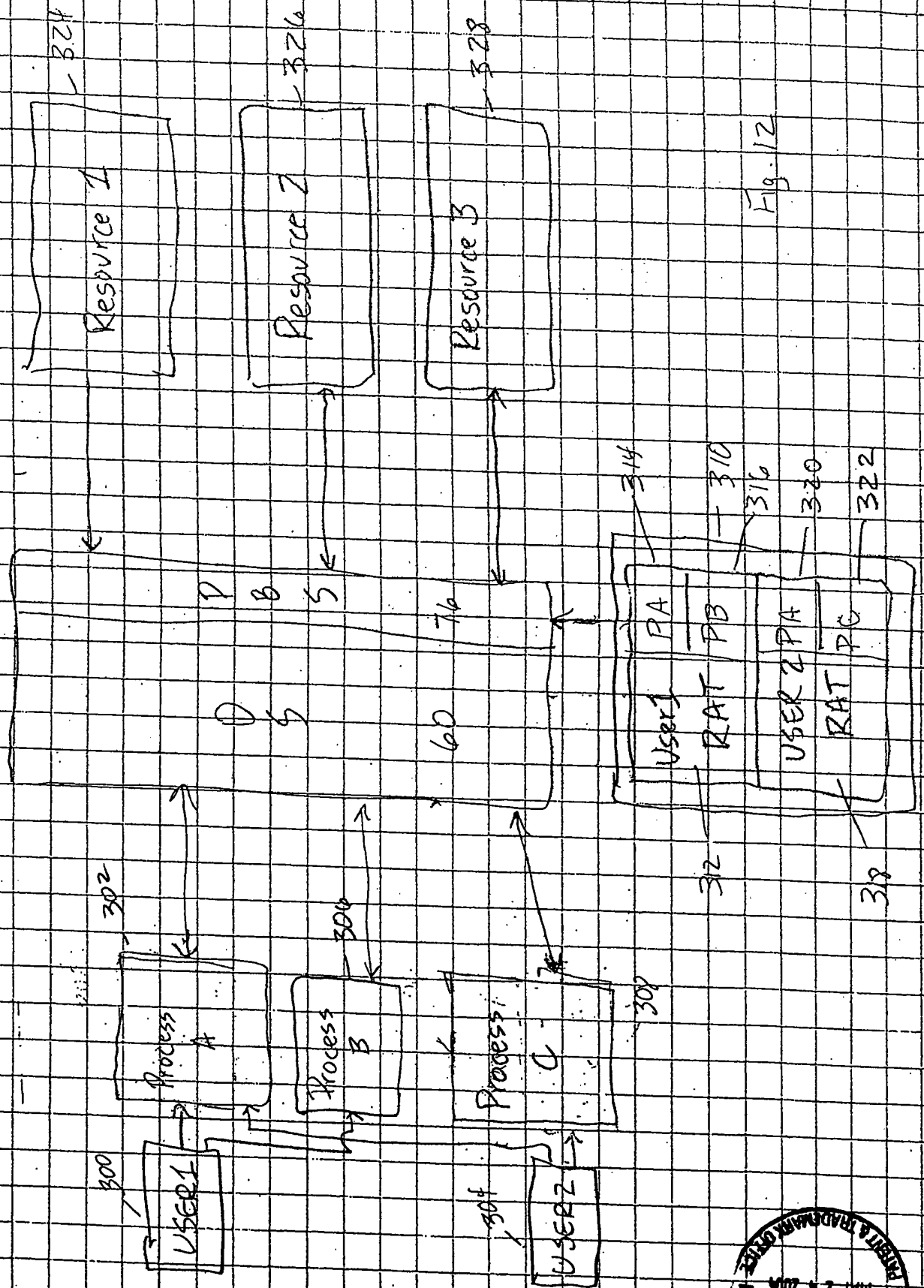


Fig. 12

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